



# FACT SHEET

Office of Water Resources – ISDS Program - March 2003

## Obtaining a Permit for a New Home's Septic System

In Rhode Island, septic systems (individual sewage disposal systems or ISDSs) must be designed by a DEM-licensed designer and installed by a DEM-licensed installer. There are four "classes" of ISDS licenses issued by DEM. New systems must be designed by a Class II or III designer; Class I designers may only design repairs to existing systems, but this can include the complete replacement of a cesspool or failing septic system. Information on design authority of Class II and III designers is available in the [ISDS Regulations](#) in section SD 25.02(b) and (c) or in the Fact Sheet "[ISDS Designer License Classes Described](#)". New sites require a soil evaluation and such tests are conducted by licensed (Class IV) soil evaluators.

### Locating and Contracting with Licensed ISDS Professionals

DEM maintains a list of licensed [installers](#) and [designers and soil evaluators](#). You may also search or query another website named [www.ri.gov](http://www.ri.gov) (or at [DEM home](#), click on "ISDS Application Search") to find designers who may be active in your neighborhood.

It is prudent to approach the process of selecting ISDS professionals, as you would any other major purchase. Seek price quotes from more than one of each contractor required (installer, designer, soil evaluator). Be certain that proposals or contracts are based on the same scope of work (system type, components and landscaping or property restoration the contractor will provide, etc.). If your site is difficult and/or may require an advanced treatment system, inquire as to whether the contractors have experience with this type of system. Contracts should articulate installation procedure, costs and payment schedule. Designers are required to witness and inspect installation of systems they design, so you should know if inspection services are included in the proposal or contract or will be part of a separate contract with the designer. Some soils require monitoring during the wet season to obtain required design information; you should know if the soil evaluator's contract includes wet season monitoring if that should be necessary. Beware that situations may occur, or conditions may be encountered which will require cost adjustments. For example, if bedrock is encountered during the soil evaluation or during installation, ledge test holes must be excavated and costs will increase. It is important that the designer incorporate into the contract situations which may cause an increase in costs to occur.

Request references and contact the parties provided by the contractors.

### Application and Other Submissions to the Department

#### Permitting

##### 1. ***Soil Test Hole Application Form*** (submitted by Soil Evaluator)

**Purpose:** This form notifies DEM that the Soil Evaluator, working on behalf of the property owner, wishes to conduct a soil evaluation and identifies the property on which the soil evaluation will be conducted.

**DEM Action:** DEM processes the form, assigns an Application Number to the project and notifies the soil evaluator whether DEM will need to witness the testing work. DEM will either schedule a day and time with the Soil Evaluator to witness the testing work or elect not to witness.

##### 2. ***Site Evaluation Form*** (submitted by Soil Evaluator)

**Purpose:** This form is the "Site Evaluation Report", it provides DEM with information about the site's suitability for an ISDS. It is composed of two distinct parts. "Part A" is known as "the Soil Evaluation". It provides the soil profile description and additional data (including a recommended seasonal high watertable design depth) based on the soil evaluator's interpretation of the soil's morphology. Information on soil physical properties is used to determine the size of the system's leachfield. "Part B" is the Site Evaluation. It provides other information about a site, including its topography, and the location of sensitive receptors, such as

drinking water wells, drinking water reservoirs and waterbodies and the location of the test holes which were described in Part A relative to these features.

**DEM Action:** DEM will do one of the following:

- a. Approve it
  - b. Determine that it is not in compliance with the regulations or that more information is required.  
Additional information may include the need for monitoring a site during the wet season.
    - DEM may approve of the Recommended Seasonal High Watertable (SHWT) Design Depth indicated by the wet season readings or Disclaim the watertable data if the site location tested is unsuitable for an ISDS.
  - c. Disclaim the site evaluation (the most common reason being that the Recommended Seasonal High Watertable (SHWT) Design Depth is less than 2-feet). If the reported Recommended Seasonal High Watertable is disclaimed:
    - Another soil evaluation may be conducted in another location on the property or a variance may be applied for.
    - Supplemental Wet season readings may be compiled and submitted to DEM
- DEM Action:** DEM will approve of the Recommended Seasonal High Watertable (SHWT) Design Depth indicated by the readings or Disclaim the watertable data if the site location tested is unsuitable for an ISDS.

3. **ISDS Application** – Submitted by a Class II or III Designer

**Purpose:** This form is used to obtain DEM's approval of a septic system design and includes information about the site, the owner and the proposed use of the property. It is accompanied by plans of the proposed system, which provide system specifications and a site plan depicting the location of the system and home on the site, current and proposed grading, and the location of roads and sensitive receptors such as drinking water reservoirs and waterbodies, etc.

**DEM Action:** Reviewed by Department.

- DEM will **approve the application** if it is complete, is in compliance with the regulations and there are no deficiencies or errors on the plan.
- DEM will **return the plan to the designer, unapproved** if the application is not complete, or is not in compliance with the regulations, or contains errors or deficiencies.

### **Using the Internet to Monitor Application Activity**

ISDS Application activity may be monitored from your computer using "[ISDS Application Search](#)", a service available through [ri.gov](#) which provides application activity; the service is updated daily. To access this service from [DEM home](#) select the link at the bottom of the screen titled "ISDS Application Search".

### **Variance Applications**

If your site can not accommodate a septic system in compliance with the ISDS regulations, you may apply to DEM for a variance from the regulations which can not be met. Variance applications require more effort from your designer, do not always result in an approval, and take longer to process and involve greater costs than applications which are in compliance with the regulations.

### **Approved Application**

Your approved application will indicate any special terms of approval on the lower right side of the form. For example, some systems require DEM inspection of the bottom of the leaching area excavation; this is line-item "C" in the terms of approval section of the application, which when stamped "Approved" and signed by DEM is the "permit". The approved plans also bear an approved stamp and DEM signature. Once the ISDS design is approved by DEM, a copy of the approved permit is mailed to the owner, the designer and the city/town Building Official. The Building Official cannot issue a building permit for the new home until he/she receives a copy of the ISDS permit. The permit is valid for five (5) years from the date of approval.

### **System Installation**

Following approval of the ISDS application, installation may begin. Your designer must call DEM to notify the ISDS program of the "Start of Construction", within 24 hours of beginning the installation. If DEM has indicated required inspections in the permit, the designer will be required to contact DEM to arrange for the required inspection(s). The components of the system will be delivered to the site and your installer will excavate the soil to accommodate the components of the system. Beware that conditions may be encountered during excavation which were not anticipated or uncovered during the site evaluation. Should such a situation occur, the job will be halted and additional testing or additional design work may be required before the installation can resume. Once construction of the system is complete your designer must certify to DEM that the system was installed in accordance with the design and meets DEM ISDS regulations.

### **Certificate of Conformance**

Once your system is installed and DEM receives the certification from your designer that the installation is proper, the application process is complete! DEM will issue a Certificate of Conformance, providing a copy to the city/town Building Official, and the system may then be used. The certificate is required before a home can be occupied.

### **Operation and Maintenance**

Operation and maintenance needs differ based on whether a system is a conventional system (septic tank, distribution box and leach field) or an innovative or alternative system (components vary by type of system). However there are some fundamental operation and maintenance considerations to be abided by in all cases. Avoid excessive water use by distributing routine activities requiring a lot of water evenly over the week (laundry, running dishwasher) and quickly repairing leaky faucets and toilets. Septic systems function in-part due to the contribution of bacteria; heavy use of bleach or strong cleaning materials, as well as dumping any paint, organic solvents or other chemical preparations down a sink or toilet, can interfere with the proper functioning of your system. If depleted, the bacterial population will ordinarily self-restore naturally over time provided use of the chemical agent is discontinued.

DEM requires that owners with certain Innovative or Alternative (I/A) systems have a maintenance contract with a qualified service provider. DEM's requirements are specified in the system's certification. Detailed operating instructions for your I/A system should be available through your designer.

It is wise to have your system inspected regularly, and pumped as needed. One can determine whether the tank needs pumping by measuring the thickness of solids on the bottom of the septic tank and scum on the surface of the wastewater in the septic tank. Systems should be inspected no less frequently than once every five years. Some communities have wastewater management ordinances that may have specific maintenance requirements. Your local community should be contacted to obtain current information concerning any such requirements in your town.

### **Additional Information on Operation and Maintenance**

Information on operation and maintenance of your septic system is available in the [University of Rhode Island Cooperative Extension](#) On-site Wastewater Training Center's information Sheet "*Maintaining Your Septic System*". Detailed information on maintaining a septic system is available in the DEM publication "[Septic System Checkup: The Rhode Handbook for Inspection](#)".